



# UNITED STATES PATENT AND TRADEMARK OFFICE

W  
UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/667,052	09/22/2003	Li Ji	SAMS01-00300	7826
23990	7590	11/02/2006	EXAMINER	
DOCKET CLERK				DOAN, PHUOC HUU
P.O. DRAWER 800889				ART UNIT
DALLAS, TX 75380				PAPER NUMBER
				2617

DATE MAILED: 11/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/667,052	JI ET AL.
	Examiner	Art Unit
	PHUOC H. DOAN	2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 02 August 2006.

2a) This action is FINAL.                    2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 21-40 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 21-40 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) Notice of References Cited (PTO-892)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO/SB/08)  
 Paper No(s)/Mail Date \_\_\_\_\_

4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_\_

5) Notice of Informal Patent Application  
 6) Other: \_\_\_\_\_

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments filed 08/02/2006 have been fully considered but they are not persuasive.

**Applicant's remarks:** the Yamashita reference fails to disclose a **channel allocator** capable of receiving the an access **request notification**, terminating a first communication link between said first base transceiver station and a first selected one of said plurality of mobile station, wherein said first selected mobile station maintains at least a second communication link with at least a second base transceiver station of said wireless network and allocating said first data traffic channel associated with said terminated first communication link to establish a communication link with said accessing mobile station.

**Examiner' response:** Yamashita specifically discloses when the mobile station 18 detected that the quality of the channel between the mobile station 18 and base transceiver station 12-1 has deteriorated and that the quality with the base transceiver station 12-2 has improved, **the mobile station 18 notifies the base transceiver 12-1 accordingly step 1002**, upon which a transfer is made to a soft handoff mode (col. 4, lines 35-51), **for establish a**

**radio channel is required the control channel based on a channel allocator the notification to complete communication in progress to access a base station** (Fig. 2 with description, col. 4, lines 35-51, col. 5, lines 23-30). That wherein said first selected mobile station maintains at least a second communication link with at least a second base transceiver station of said wireless network and allocating said first data traffic channel associated with said terminated first communication link to establish a communication link with said accessing mobile station as indicated in Fig. 2 “the forward traffic information is also transferred from the base transceiver station 12-1 to the base transceiver station 12-2 and then transmitted from the base transceiver station 12-2 onto its radio channel. After that, when the quality of the channel with the base transceiver station 12-1 has deteriorated far enough, the soft handoff mode is terminated (steps 1016, 1018), and a transfer is made to the normal communication mode in which the mobile station 18 is connected only to the base transceiver station 12-2 (step 1020) (See col. 4, lines 51-67, col. 5, lines 1-36).

**Applicant's remarks:** the Yamashita reference fails to disclose terminating a soft handoff connection in response to receiving the access request notification.

**Examiner's response:** the Yamashita reference discloses when the quality of the channel with the base transceiver station 12-1 has deteriorated far enough, the soft handoff mode is terminated (steps 1016, 1018), and a transfer is made to the normal communication mode in which the mobile station 18 is connected only to the base transceiver station 12-2 (step 1020), **the mobile station 18 notifies the base transceiver 12-1 accordingly step 1002**, upon which a transfer is made to a soft handoff mode (col. 4, lines 35-51), **for establish a radio channel is required the control channel based on a channel allocator the notification to complete communication in progress to access a base station** (See col. 4, lines 51-67, col. 5, lines 1-36).

**Applicant's remarks:** the Yamashita reference fails to disclose a method for allocating the plurality of data traffic channels comprising: in response to the access request message detection, terminated first communication link to establish a communication link with said accessing mobile station.

**Examiner response:** Yamashita specifically discloses the soft handoff mode under the control of the base transceiver station 12-2 is essentially the same as the soft handoff mode under the control of the base transceiver station 12-1, except that the base transceiver station 12-2 takes control and performs

inter-cell diversity processing in place of the base transceiver station 12-1 (step 1015), when the quality of the channel with the base transceiver station 12-1 has deteriorated far enough, the soft handoff mode is terminated (steps 1016, 1018), and a transfer is made to the normal communication mode in which the mobile station 18 is connected only to the base transceiver station 12-2 (step 1020) (See col. 4, lines 51-67, col. 5, lines 1-36).

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims **21-27, 29-35, and 37-39** are rejected under 35 U.S.C. 102(e) as being anticipated by **Yamashita (US Patent No: 6,108,547)**.

**As to claim 21**, Yamashita discloses for use in a wireless network comprising a first base transceiver station capable of establishing and maintaining communication links with a plurality of mobile stations by means of a plurality of

data traffic channels (Fig. 1, col. 3 through col. 4, lines 65-30), an apparatus for allocating said plurality of data traffic channels comprising: an access request detection circuit capable of detecting an access request message received from an accessing one of said plurality of mobile stations and generating an access request notification (col. 4, lines 35-45); and a channel allocator capable of receiving said access request notification and (col. 4, lines 46-55), in response thereto: 1) terminating a first communication link between said first base transceiver station and a first selected one of said plurality of mobile stations (col. 5, lines 23-35), wherein said first selected mobile station maintains at least a second communication link with at least a second base transceiver station of said wireless network (col. 5, lines 36-58), and 2) allocating said first data traffic channel associated with said terminated first communication link to establish a communication link with said accessing mobile station (col. 6, lines 22-60).

**As to claim 22,** Yamashita further discloses the apparatus as set forth in Claim 21 wherein said channel allocator is capable of determining if one of said plurality of data traffic channels associated with said first base transceiver station is unused prior to terminating said first communication link between said first base transceiver station and said first selected mobile station (col. 4 through col. 5, lines 52-28).

**As to claim 23**, Yamashita further discloses the apparatus as set forth in Claim 22 wherein said channel allocator allocates an unused one of said plurality of data traffic channels associated with said first base transceiver station to establish a communication link with said accessing mobile station in lieu of terminating said first communication link and allocating said first data traffic channel associated with said terminated first communication link to establish a communication link with said accessing mobile station (col. 6, lines 22-60).

**As to claim 24**, Yamashita further discloses the apparatus as set forth in Claim 21 further comprising a memory coupled to said channel allocator (Fig. 5, col. 6 through col. 7, lines 60-13), wherein said memory is capable of storing status data associated with said

Plurality of communication links maintained by said first base transceiver station with said plurality of a mobile stations (col. 7, lines 13-55).

**As to claim 25**, Yamashita further discloses the apparatus as set forth in Claim 24 wherein said status data comprises a received signal strength indicator associated with each of said plurality of communication links (col. 4, lines 35-45).

**As to claim 26**, Yamashita further discloses the apparatus as set forth in Claim 25 wherein said status data comprises handoff state data indicating whether each mobile station associated with each of said communication links maintains

communication links with at least two base transceiver stations (col. 4, lines 13-25).

**As to claim 27**, Yamashita further discloses the apparatus as set forth in Claim 26 wherein said channel allocator determines a weakest received signal strength indicator associated with one of said plurality of mobile stations maintaining communication links with at least two base transceiver stations (col. 5, lines 28-35).

**As to claim 29**, the claim is rejected for the same reason as set forth in claim 21.

**As to claim 30**, the claim is rejected for the same reason as set forth in claim 22.

**As to claim 31**, the claim is rejected for the same reason as set forth in claim 23.

**As to claim 32**, the claim is rejected for the same reason as set forth in claim 24.

**As to claim 33**, the claim is rejected for the same reason as set forth in claim 25.

**As to claim 34**, the claim is rejected for the same reason as set forth in claim 26.

**As to claim 35**, the claim is rejected for the same reason as set forth in claim 27.

**As to claim 37**, the claim is rejected for the same reason as set forth in claim 21.

**As to claim 38**, the claim is rejected for the same reason as set forth in claim 22.

**As to claim 39**, the claim is rejected for the same reason as set forth in claim 23.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 28, 36, and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamashita in view of Menich (US Patent No: 5,287,544).

**As to claim 28**, Yamashita discloses all the limitation in claim 27. However, Yamashita does not disclose wherein said channel allocator selects said communication link associated with said weakest received signal strength indicator to be said terminated first communication link.

Menich specifically discloses wherein said channel allocator selects said communication link associated with said weakest received signal strength indicator to be said terminated first communication link (col. 2 through col. 3, lines 49-30).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the signal strength indicator to the terminal as taught by Menich to the system of Yamashita in order to prevent of service interruptions.

**As to claim 36**, the claim is rejected for the same reason as set forth in claim 28.

**As to claim 40**, the combination of Yamashita and Menich further disclose the method as set forth in claim 37 further comprising the steps of: determining a weakest received signal strength indicator associated with one of a plurality of mobile stations maintaining communication links with the first base transceiver station and at least one other base transceiver station (col. 5, lines 28-35 of Yamashita); and selecting the communication link associated with the weakest received signal strength indicator to be the terminated first communication link (col. 2 through col. 3, lines 49-30 of Menich).

*Conclusion*

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

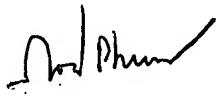
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however,

will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PHUOC H. DOAN whose telephone number is 571-272-7920. The examiner can normally be reached on 9:30 AM - 6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, GEORGE ENG can be reached on 571-272-7495. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Phuoc Doan  
10/27/06

  
George Eng  
GEORGE ENG  
SUPERVISORY PATENT EXAMINER